I filed a comment in favor of the NPRM in proceeding 05-235 on 8/5/05, and have been trying to follow the other commenters with two intentions:

1. to prepare a well reasoned rebuttal to weak arguments against the NPRM

2. to watch for compelling arguments that might change my mind. (I have found none.)

Many of the arguments in favor of the morse code test are very weak. Those making the arguments consider them meaningful, though, so I consider it important to point out the weaknesses that are obvious to me, though maybe less obvious to others.

I observe that there are common themes that recur in the comments. The remainder of this document is divided into these sections, where I address various recurring themes:

A. Themes that I consider relevant to the morse code testing issue.
B. Themes used to support morse code testing, but that don't really seem relevant.
C. Various proposed changes to the NPRM.

A. Themes that I consider relevant to the morse code testing issue.

<u>Morse code is essential for low power emergency communication.</u>

> This argument is that morse code is good for low power emergency communcation because you can do it with simple equipment and low power. For example, after a hurricane, your batteries will last much longer with a 5 watt CW transmitter than with a 100 watt SSB transmitter.
>
> Nobody proposes to require licensees to possess the equipment that is a premise to this argument. Yet without that equipment, morse code ability will make no difference.

<u>The morse code test is the only distinction of amateur radio from other radio services.</u>

> This is quite obviously not true. For example:
>
> - In CB, FRS, and GMRS, the user must use type accepted equipment. In the amateur service, however, we are permitted to design and build our own equipment. Further, the standards we must meet are less rigid than those for type accepted equipment.
>
> - Amateur radio has specific frequency allocations. Part 15 devices have are restricted to limited power and come with concerns of causing interference to the legitimate users of those bands, even when operated in good faith.

- Amateur radio operators can use their radios anywhere for any recreational purpose. Marine radios may only be used on boats, and then only with specific modes and for specific purposes.

It is clear that there is no other service that is "just like amateur radio, but without morse code". If there was, I would be interested in this hypothetical other service, rather than amateur radio.

Morse code is a universal language that radio amateurs throughout the world can understand.

This argument makes morse code seem like a modern day Esperanto, but it is not. The claim is based on things like "Q signals", where, for example, "QTH?" means "where are you?"

The current morse code test does not test for knowledge of Q signals, though it is helpful to know a half dozen or so of the most common because they may appear in the test message. So we are already not testing for the supposed universal language.

Further, what is the universal language for "I like ice cream"? Or, since test proponents are so concerned with emergency communication, what is the universal language for "Two people here are injured; one is concious but delerious, the other unconcious with a broken leg and weak pulse"?

Computer engineers call this sort of thing a "domain specific language". It is specialized for a specific purpose, but has little or no facility for going outside it's specific domain. Morse code with Q-signals escapes that limitation in one way: You can go outside the domain by using a natural human language such as English, but then you can no longer claim a "universal" language.

Morse code is not difficult to learn.
Morse code testing is not a barrier to entry.
Morse code testing is not a barrier to upgrading.

Many pro-code-test comments claim that morse code is easy to learn for anyone willing to put some effort into it. I find, however, that some commentors favor the code test while still conceeding that it is difficult to learn. For example:

Harold F Wintcher, in his comments of 9/19/05:

> I never met a ham who boasted of "learning the code" in a few hours or days, even to pass the simple 5 word per minute Novice

> Class code test. Rather they spent weeks, months or, in my case, nearly two years!

John K. Helmbold, in his comments of 9/2/05:

> I have taught code classes and had success with student of all ages and abilities. Yes, there are some people who seem never to "get it", but that is just as certain of algebra, basic circuitry or any of the other necessary skills and bodies of knowledge in our hobby.

I find these comments somewhat satisfying after so many that dismiss the idea that there is any difficulty, instead applying aspersions such as “lazy”.

Beyond that personal satisfaction, though, I think it should not escape the commission's notice that there are people on both sides of the argument who agree that passing the code test is difficult.

That means the question is “Why should we impose this difficult requirement?” rather than “Why should we impose this easy requirement?”. Of course, that means we are looking for even more compelling arguments in favor of the test.

How can intelligent people claim they can't learn?

Allen J. zZmmerman (I suspect a minor typo, but that is what you must search for to find the comments in the database), in his comments of 8/8/05, says:

> I have been long amused by the fact educated, intelligent people who readily pass a written exam on the technical merits of electronics refuse to and say they can not learn a simple language system. Baloney! They choose not to. They are capable. This small minority should not voice the majority opinion.

The comparison is invalid. When someone says “I know morse code”, it doesn't mean the same thing as “I know algebra” or “I know Kirchoff's law.” It is a physical skill, much like playing a musical instrument or golf. I know a reasonable amount of mathematics, physics, chemistry, etc. I have never been able to play a musical instrument with any proficiency.

From a regulatory perspective, it is irrelevant whether people can or cannot learn. If morse code skill is absolutely essential to correctly operate an amateur radio station (as it was in the early 1900's), then it must be required whether everyone can learn it or not. If it is merely one mode that you can choose to use or to ignore, then there is no reason to require that physical skill of everyone.

We need the morse code test, or the amateur bands will be as bad as CB.

> This argument would be more properly stated as a claim that learning morse code somehow makes one a courteous operator and/or that discourteous operators will be reluctant to learn morse code. The reference to CB appears to come from a general distaste that some amateur radio operators have for Citizen's Band users and their behaviour on the air.
>
> I do not find this claim plausible. Amateurs alread complain about bad behaviour by other licensed amateurs on the HF bands. Obviously, these people were not deterred by the morse code test.
>
> Further, if this argument were true, we should expect to find the same degree of bad behaviour on the VHF amateur bands, where there is no morse code test. Yet we do not.

B. Themes used to support morse code testing, but that don't really seem relevant.

I note that the arguments I placed in this section seem to claim various advantages of morse code, but showing that morse code has advantages is not the same as showing that we must have a morse code test.

It is almost as if people think the proposal is to ban the use of morse code outright, and so supporters must list every possible advantage that morse code has.

But the proposal is NOT to ban morse code. To justify testing for this physical skill, we do not need to show that morse code has potential advantages in some circumstances; we need to show that it is necessary.

If there is no incentive to learn morse code, this important skill will be lost.

> From a regulatory perspective, it doesn't matter.
>
> Many advantages have been claimed for morse code. If only a minority of those claims are true, some amateurs will learn morse code on their own initiative. The obvious benefits will be too great to pass up.
>
> On the other hand, if we need a federal mandate to preserve morse code, then all the other claimed advantages must be false, and we should let the mode die out.

Morse code is an efficient use of spectrum.

Morse code can be used with very simple radios.
Poor people in third world countries may only be able to afford CW equipment.
Many beginners can only afford CW equipment.
Morse code can be used with a lower signal to noise ratio.
Low power equipment can run off batteries for a long time during an emergency.

These points are all irrelevant to the question of testing, because there is no requirement to:

- use morse code in any way at any time after passing the test
- maintain one's morse code skills after leaving the test session
- possess equipment suitable to send/receive morse code

The NPRM does not propose to forbid use of morse code outright; it merely proposes to stop testing for it. If these claims are true, people can and will learn it on their own initiative and take advantage of the narrow bandwidth, low cost, etc.

Morse code is a “tradition”.

Maybe it is, but it is a feeble tradition indeed if it cannot survive without a federal mandate. I repeat that we are not eliminating morse code. We are eliminating a test. If the tradition deserves to survive, it will.

A skilled operator sent a message faster by morse code than by cell phone text messaging on “The Tonight Show with Jay Leno”.

It is unclear to me how this is even an interesting comparison, much less a reason to impose a one-time test of morse code capability. However, if it were a fair comparison, I would certainly want to compare the 5 minutes spent learning to send a text message by cell phone to the several weeks, months, or years (depending on the individual) required for morse code proficiency.

People can get great pride and personal satisfaction from passing the code test.

I'm sure they do, but some of us don't need the federal government to create arbitrary obstacles so we can be proud of overcoming them.

Just because other countries drop their code requirements doesn't mean we should.
The US should be an international leader, not a follower.

This argument appeals to our well justified national pride, but it misses the point. The US joins in a treaty when congress decides it is to our benefit as a nation, but treaties always involve compromise. There is no longer a foreign demand that we test our amateurs for morse code skills, so the issue can be decided on it's own merits.

My relative used morse code to communicate when they were hospitalized and unable to speak.

This may be a suitable argument for teaching morse code to the population as a whole (so everybody may know morse code in case they are hospitalized), but it is unclear what this has to do with an amateur radio license.

Dropping the morse code test will lead to elimination of the CW band segments.

If the continued existence of the CW allocations is questioned, it should be judged on it's own merits. The morse code test should also be judged on its own merits, not on how it helps in political posturing for some other debate.

Dropping the morse code test is an insult to all those who worked hard to pass it.

Nobody can judge another person's feelings, so if they claim to feel insulted, I must take them at their word. I do not conceed that their claimed insult is relevant to the decision.

Their emotional well-being is not my responsibility and it is not the responsibility of the federal government. If all other reasons point to removing the morse code test, then these people must live with the insult.

We can't say "From now on, we will never change the rules because we might insult someone who put some effort into complying with the old rule."

People today want instant gratification.
People don't want to put any effort into anything.
People want "something for nothing".
They don't want to "earn" their license.
We are "dumbing down" amateur radio.

The whole point of licensing is to limit access to those people who are capable of correctly operating an amateur radio station. It is not a test of moral fiber; it is a test of whether you know how to operate a station.

We don't care how long it took you to prepare for the test. You are capable, or you are not.

A license is not a token of esteem to "earn". You are capable, or you are not.

There is no "something for nothing". You are capable, or you are not.

It doesn't matter how hard you worked to satisfy the qualifications. You are

capable, or you are not.

The only question is whether a one-time test of morse capability is necessary to demonstrate that capability, so these objections are irrelevant.

Lowering requirements – the neurosurgeon example.

One of the filed comments said something to the effect of "If I want a neurosurgeon, I don't want somebody who passed the 'simplified' test."
I regret that I do not have a citation, but it was such a distinctive analogy that I think it is worth commenting on anyway.

The neurosurgeon is expected to be prepared to make correct life-or-death decisions on a regular basis, both during surgery and during consultations. There is no similar high standard required of amateur radio. That is why it is called amateur; if we had similarly high standards, it would be professional and we would require similarly high standards of training and examination.

But to continue with the neurosurgeon example, I also don't want a neurosurgeon who took time away from studying brain anatomy in order to pass a test showing the ability to perform liposuction.

Technicians are declining to upgrade because they will wait for the code requirement to be dropped.

This is true, but it is unclear why it is a problem. I find morse code both difficult and uninteresting. With the exception of morse code, I have already qualified for a General class license upgrade. Given that I have no interest in morse code, and that I could spend my time on something that is interesting, such as phase locked loop design, how is it a problem that I may wait for the requirements to change?

I do, however, note one odd comment relating to Technician-to-General upgrades:

Robert A. Rice, in his comments of 8/4/05:

> In closing, I was counting on taking the Morse Code 5 WPM test to upgrade to General class, however if the aim of the Commission is to eliminate it, I and other technician class operators I have discussed this issue with agree to await the Commission rule making to take the General test without the Code.

I found this surprising, since the remainder of his comments were in favor of morse code testing. If he would choose not to learn morse code, I question

whether he believes his own arguments that morse code skill is important.

<u>The written tests are too easy. The morse code test is the only requirement to actually learn something.</u>

Adding an arbitrary requirement in the form of a morse code test is not a useful solution to poor written exams. If the written exams are too easy, then the solution is to fix the written exams.

Two obvious responses to the problem of written exams come to mind:

1. Petition the NCVEC to increase the size of the question pools. With a very large question pool, it becomes difficult to simply memorize answers.
2. Petition the FCC to change the nature of the written tests.

If there is a real and serious problem with the testing process, rather than just a spurious claim intended to support the morse code test, those would be the appropriate actions.

<u>The only voices that should be heard on the current issue of rule changes to the HF bands are the users of the bands.</u> (From the comments of Brian Shoemaker, 10/31/05)

Of course, the Commission is not permitted to do that, much as it might help Mr. Shoemaker's position to limit discussion of the morse code test to a group of people who have already passed that test.

Mr. Shoemaker also suggests:

> If we are going to eliminate Morse code proficiency testing then let us also change the amateur license structure to one class and call it the Citizen Band class.

I find this acceptable. It is not at all clear to me that we need multiple levels of licensing, and indeed amateur radio flourished with just a single license class for the first several decades that licenses existed. It is, however, far beyond the scope of the current proposal, and therefore should be subject to a separate rule-making process where people could give serious thought to the matter.

<u>Every amateur I know found it easy to learn morse code.</u>

Of course they did! Most of those who found it difficult, impossible, or even just more trouble than it is worth, did not become radio amateurs. All this argument shows is this: If you socialize with radio amateurs, you are likely to find people who met the requirements to become radio amateurs.

Many people use morse code.
Morse code is very popular in contesting.
Morse code is very popular in general.

It doesn't matter. The fact that many people find morse code interesting is not a compelling reason to require that skill of the people who do not find it interesting.

There is no claim that nobody uses morse code, and among the anti-test camp there is no claim that lack of a morse code test will lead to a decline in the use of morse code. The only claim is that we should leave morse code to those people who are actually interested in it.

Morse code will surely survive without the federal mandate.

Dropping the morse code test would be like dropping handwriting in schools.

The comparison is invalid. While you can easily operate amateur radio without every using morse code, daily life includes numerous examples of handwriting. Why do Post-It notes sell so well? Because they are perfect for making brief hand-written notes.

C. Various proposed changes to the NPRM

The NPRM is unclear about technician license privileges after the change.

The NPRM itself does not dwell on this specific issue. I believe that it is clear from the proposed changes to 47 CFR 97, though it might be a little difficult for some readers. To understand the implications, it is necessary to examine Part 97 as it would read after the proposed changes. I have done so, and did not find it confusing.

Still, I recognize that many people will not carefully read the new regulations, so I suggest that a description of the various implications will be necessary to avoid confusion. A “FAQ” (Frequenty Asked Questions) document would be one possible approach.

Morse code testing should be required for Extra class licenses only.

I think this idea exists primarily as a last-ditch attempt to preserve some sort of federally mandated morse code test.

From most of the comments, it is hard for me to discern why an argument that is weak for requiring the test of General class licensees would be a strong

argument for requiring it of Extra class licensees. Consequently, I believe I have addressed most of the arguments above.

The most meaningful point that I have identified is that the Extra class license is the highest level, and should therefore meet the highest requirements. Of course, this would be true with or without the morse code test.

Make morse code credit toward a test score, as in Canada.

In Canada, a prospective licensee who passes a morse code test is permitted a lower passing score on the written test. If I remember correctly, it is something like 75% is passing if you pass a morse code test, but 85% is passing if you do not. (The exact numbers are not important for this discussion.)

I don't see why knowing morse code relieves an operator of knowing the other required material. Even with morse code, the operator is still required to know and follow the same rules; the operator still has to deal with the same radio propagation, exposure limits, etc; the operator still needs to avoid interference with other licensed users.

Summary

I have examined a great volume of the comments on the NPRM, both as filed with the FCC and as expressed in various amateur radio discussion forums. I have found many poor arguments in favor of morse code testing and addressed weaknesses of many of those arguments in this document.